CLAIMS

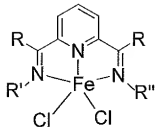
Claims 1-37. (Canceled)

Claim 36. (New) A method for preparing bimodal polyethylene polymer comprising:
combining porous polyethylene beads with polymerization catalyst component and subjecting the combination to reduced pressure thereby obtaining supported catalyst;
washing the supported catalyst;
supplying the supported catalyst to a second reaction zone;
maintaining the second reaction zone under conditions effective to obtain bimodal polyethylene polymer; and
obtaining bimodal polyethylene polymer.

Claim 37. (New) The method of claim 36 further comprising preparing the porous polyethylene beads in a first reaction zone.

Claim 38. (New) The method of claim 37 wherein a supported catalyst is used.

Claim 39. (New) The method of claim 38 further comprising preparing the porous polyethylene beads in a first reaction zone by contacting ethylene monomer with an iron based catalyst complex represented by the formula (I):



wherein R is an alkyl having from 1-20 carbon atoms and R' and R" are the same or different and are an alkyl group having from 1-20 carbon atoms or an unsubstituted or substituted aryl group having at least one substituent of at least 1-20 carbon atoms; and

wherein the catalyst complex is covalently bound to and supported on porous polystyrene beads.

Claim 40. (New) The method of claim 39 wherein R is a C_1-C_4 alkyl group.

Claim 41. (New) The method of claim 39 wherein R is a methyl group.

Claim 42. (New) The method of claim 41 wherein R' and R" are the same phenyl group.

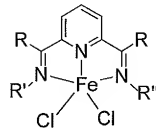
Claim 43. (New) The method of claim 42 wherein R' and R" are substituted with substituents at the 2 and 6 positions.

Claim 44. (New) The method of claim 43 wherein the substituents are selected from the group consisting of methyl, isopropyl and tertiary butyl.

Claim 45. (New) The method of claim 43 wherein the substituents are isopropyl groups.

Claim 46. (New) A method for preparing bimodal polyethylene polymer comprising:

combining under pressure porous polystyrene beads with a catalyst represented by the formula (I)



wherein R is a methyl group and R' and R" are phenyl groups both substituted at the 2 and 6 positions with methyl, isopropyl or tertiary butyl groups;

obtaining styrene supported catalyst;

washing the styrene supported catalyst;

supplying the styrene supported catalyst to a first reaction zone;

maintaining the first reaction zone under conditions effective to obtain porous polyethylene beads;

combining the porous polyethylene beads with polymerization catalyst component and subjecting the combination to reduced pressure thereby obtaining supported catalyst;

washing the supported catalyst;

supplying the supported catalyst to a second reaction zone;

maintaining the second reaction zone under conditions effective to obtain bimodal polyethylene polymer; and

obtaining bimodal polyethylene polymer.